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Decisional equipoise is not decisional conflict: Avoiding the false clarity bias in the evaluation of decision aids and shared decision making processes

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AIMS: To question the construct validity of using ‘sureness’ questions, such as items 10-12 in the Decisional Conflict Scale (DCS) [5, 6] and item 1 in the SURE [4] instruments, in evaluating decision aids and processes. To investigate empirically the extent of equipoise in a trial of decision aids [1,2] using the expected value of combining evidence-based Ratings with personal criterion Weightings as individual’s Option Scores. To establish relationship between equipoise and decision quality as self-assessed by MyDecisionQuality (MDQ) [3], a dually-personalised instrument not including ‘sureness’.

CONCLUSIONS:

- Evaluations of decision aids and Shared or unshared Decision Making processes, should accept that equipoise is a possible and legitimate outcome, even after full and unbiased processing of evidence and preferences. In ‘toss-up’ situations two or more options may be equally good [7].
- Instruments used in such evaluations should therefore not reward unwarranted ‘sureness’ or ‘decisional conflict reduction’, since this potentially leads to a ‘false clarity’ bias.
- Empirically, going or not going for PSA screening for prostate cancer emerged as a ‘toss-up’ for the majority of the 727 Australian men in one arm of a trial of two decision aids based on Multi-Criteria Decision Analysis, implemented in Annalisa© [2] . There was virtually no correlation between the Absolute Difference in the Option Scores and Decision Quality self-assessed by MDQ.

Decisional Conflict Score

| | Strongly Agree | Agree | Neither Agree Or Disagree | Disagree | Strongly Disagree |
|---|--------------------------|--------------------------|---------------------------|--------------------------|--------------------------|
| | [0] | [1] | [2] | [3] | [4] |
| 1. I know which options are available to me. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. I know the benefits of each option. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. I know the risks and side effects of each option. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. I am clear about which benefits matter most to me. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. I am clear about which risks and side effects matter most. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. I am clear about which is more important to me (the benefits or the risks and side effects). | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. I have enough support from others to make a choice. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. I am choosing without pressure from others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. I have enough advice to make a choice. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. I am clear about the best choice for me. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11. I feel sure about what to choose. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12. This decision is easy for me to make. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13. I feel I have made an informed choice. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 14. My decision shows what is important to me. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 15. I expect to stick with my decision. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 16. I am satisfied with my decision. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Decisional Conflict Scale © AM O'Connor, 1993, revised 2005

4.1.2 Scoring and interpretation

Items are given a score value of:

0 = ‘strongly agree’; 1 = ‘agree’; 2 = ‘neither agree nor disagree’; 3 = ‘disagree’; 4 = ‘strongly disagree’.

TOTAL SCORE

16 items [items 1-16 inclusive] are: a) summed; b) divided by 16; and c) multiplied by 25.

Scores range from 0 [no decisional conflict] to 100 [extremely high decisional conflict].

UNCERTAINTY SUBSCORE

3 items [10, 11, 12] are: a) summed; b) divided by 3; and c) multiplied by 25.

Scores range from 0 [feels extremely certain about best choice] to 100 [feels extremely uncertain about best choice].

SURE

| | | Yes [1] | No [0] |
|---------------------------|--|--------------------------|--------------------------|
| Sure of myself | Do you feel SURE about the best choice for you? | <input type="checkbox"/> | <input type="checkbox"/> |
| Understanding information | Do you know the benefits and risks of each option? | <input type="checkbox"/> | <input type="checkbox"/> |
| Risk-benefit ratio | Are you clear about which benefits and risks matter most to you? | <input type="checkbox"/> | <input type="checkbox"/> |
| Encouragement | Do you have enough support and advice to make a choice? | <input type="checkbox"/> | <input type="checkbox"/> |

The SURE Test © O'Connor and Légaré, 2008.

4.4.2 Scoring and Interpretation

Items are given a score value of:

0 = ‘no’; 1 = ‘yes’.

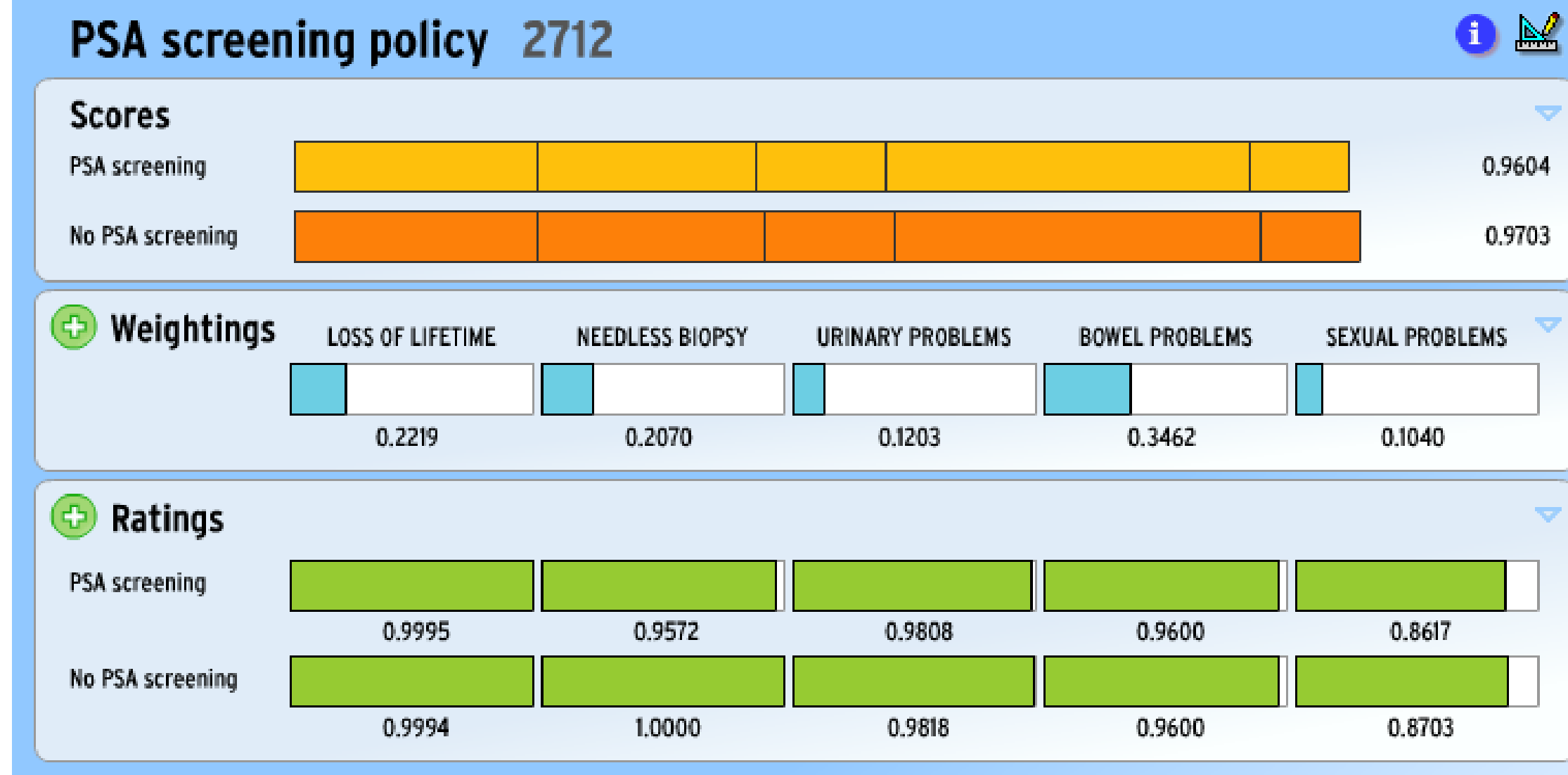
TOTAL SCORE (UNCERTAINTY)

4 items [items 1-4 inclusive] are summed.

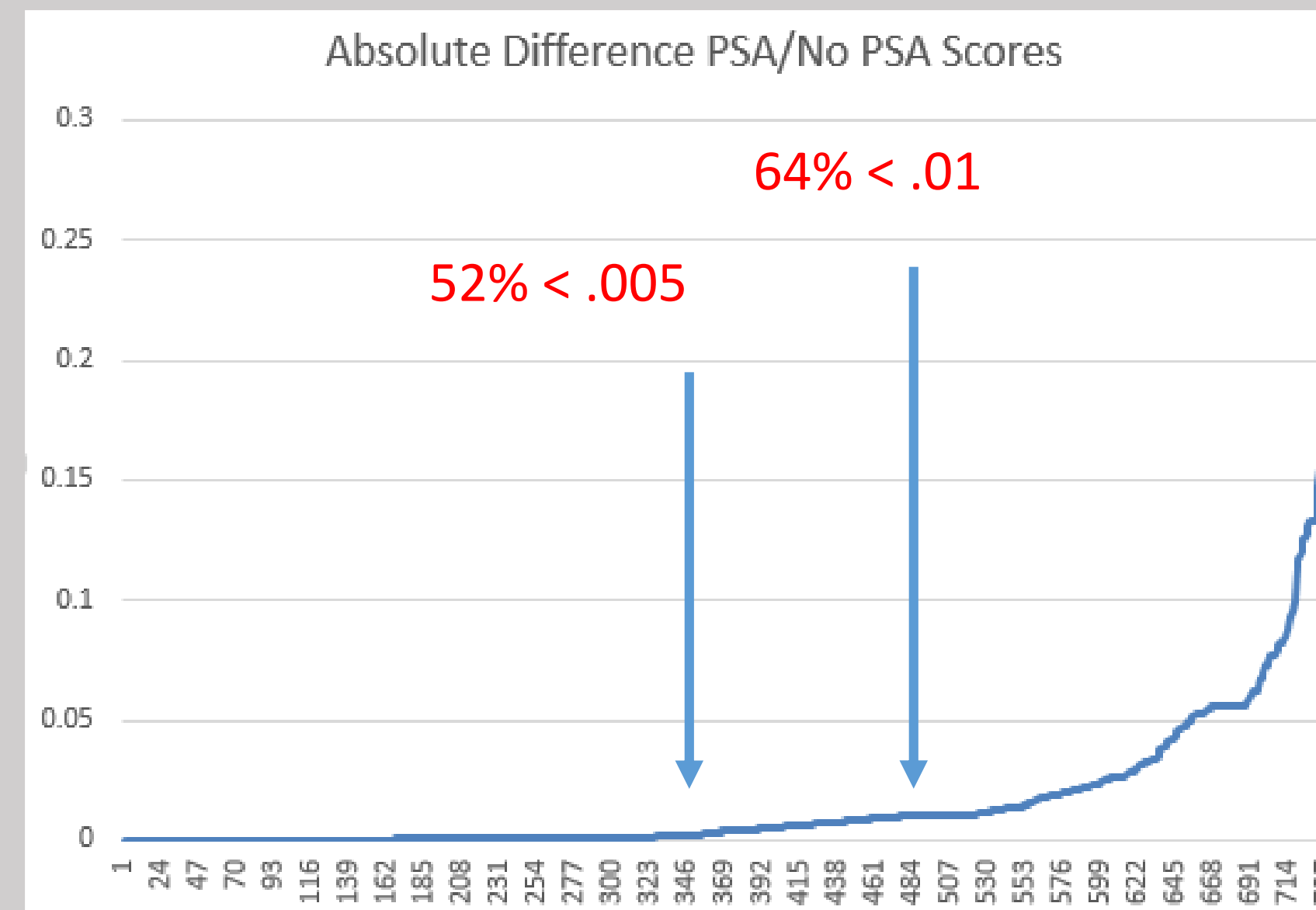
Scores range from 0 [extremely high decisional conflict] to 4 [no decisional conflict].

A score of ≤ 3 indicates decisional conflict

RESULTS FOR SCREENING



Respondent 2712 shows .01 Absolute Difference between PSA and No PSA Scores, combining evidence-based Ratings with personal criterion Weightings

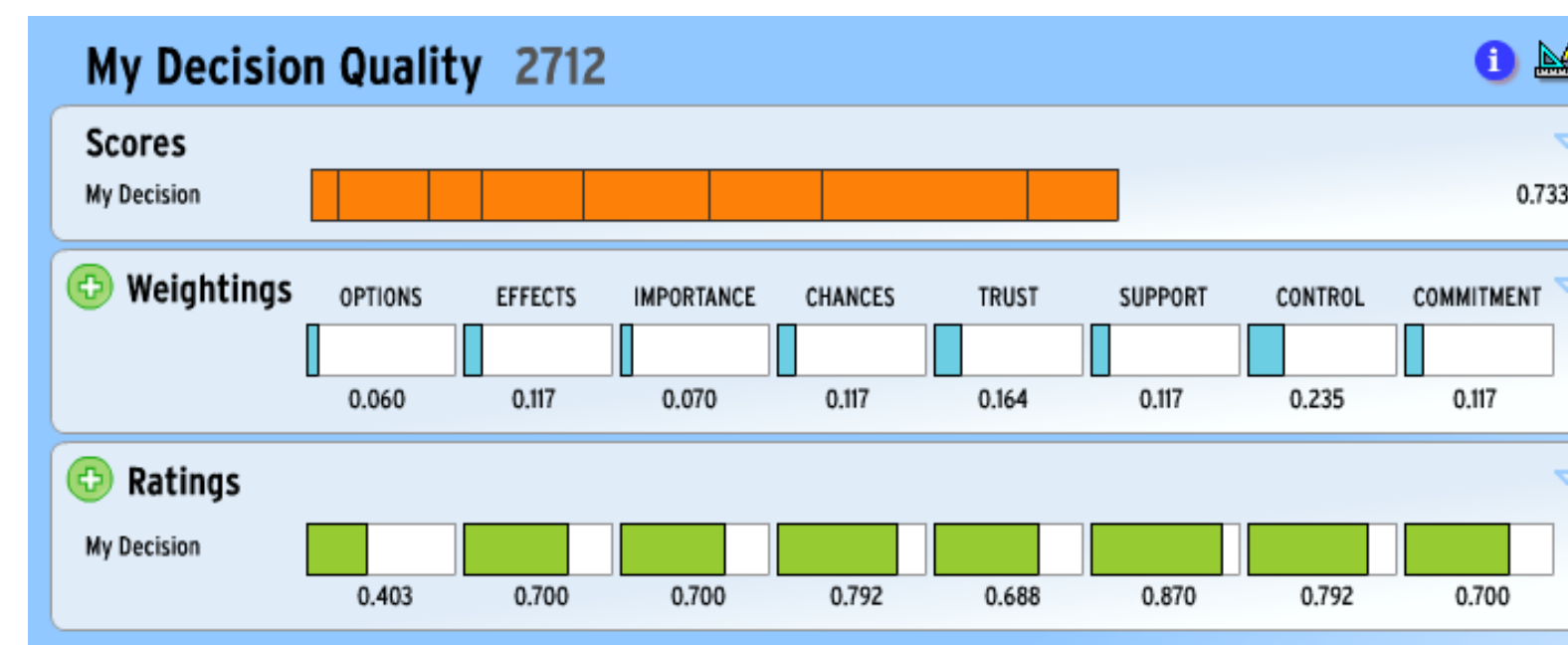


64% of the 727 respondents had Absolute Score Differences (No PSA – PSA) of less than .01; 52% less than .005

RESULTS FOR DECISION QUALITY

| OPTIONS | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | ? |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Importance of being clear about the possible OPTIONS for me and the process they involve | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| EFFECTS | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Importance of being clear about the possible EFFECTS and outcomes of each option for me | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| IMPORTANCE | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Importance of being clear about the relative IMPORTANCE of the different possible effects and outcomes for me | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| CHANCES | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Importance of being clear about the CHANCES of the different effects and outcomes happening to me, including the uncertainties surrounding the best estimates of them | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| TRUST | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Importance of being able to TRUST the information I was given was the best possible | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| SUPPORT | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Importance of feeling I received the level of SUPPORT and consideration I wanted throughout the decision process, especially in regard to communicating at my level | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| CONTROL | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Importance of feeling I was in CONTROL of my decision to the extent I wished | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| COMMITMENT | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Importance of feeling COMMITTED to acting on the decision taken | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

MyDecisionQuality
(Weightings items)



MDQ Score of respondent 2712 (combining his Weightings and Ratings) was .733.

Overall correlation of MDQ Score and Absolute Difference for 727 respondents = .06

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THE TOSS-UP

Perhaps all these factors are involved in clinical controversies, but we propose that one explanation has not been sufficiently recognized: that it simply makes no difference which choice is made. We suggest that some dramatic controversies represent “toss-ups” — clinical situations in which the consequences of divergent choices are, on the average, virtually identical. The hypothesis that some controversies represent toss-ups is based on our experience with clinical problems that are sufficiently difficult to warrant a request to our Division of Clinical Decision Making for consultation. These consultations are carried out by applying formal decision-analytic methods. Using de-

A Psychological Tip - Piet Hein

Whenever you're called on to make up your mind, and you're hampered by not having any, the best way to solve the dilemma, you'll find, is simply by spinning a penny. No — not so that chance shall decide the affair while you're passively standing there moping; but the moment the penny is up in the air, you suddenly know what you're hoping.

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Jack Dowie has a financial interest in Annalisa, but did not benefit from its use in the trial concerned

